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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,721	06/26/2003	Ian Robinson	NG(ST)-6445	5804

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EXAMINER	
BURD, KEVIN MICHAEL	
ART UNIT	PAPER NUMBER
2611	
MAIL DATE	DELIVERY MODE
08/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,721	ROBINSON ET AL.	
	Examiner	Art Unit	
	Kevin M. Burd	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,12-17 and 19-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,12-17 and 19-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This office action, in response to the request for continued examination (RCE) filed 8/5/2008, is a non-final office action.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/5/2008 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 12, 13, 20 and 21 have been fully considered but they are not persuasive. A stated in the advisory action mailed 7/14/2008, the signals of Muller are consistent with the replica signals of Ghanadan where the signals have portions of the signals removed via the filters. The signals will each contain a replica of a portion of the original signal for processing. The signals containing a portion of the original signals are labeled replica signals in Ghanadan and in the previous rejections of the claims. Muller discloses sequentially ordering the replica signals shown in figure 4 and combining the signals in the adder of figure 5 to recreate the original signals with crest factor reduction. For these reasons and the reasons stated in the previous office action, the rejections of the claims are maintained.

4. The declaration filed on 2/12/2008 under 37 CFR 1.131 has been considered but is ineffective to overcome the Corral reference.

The evidence submitted is insufficient to establish diligence from a date of conception to either a constructive reduction to practice or an actual reduction to practice. Exhibit A is dated 10/5/2002. Exhibit B is dated 11/27/2003 It is unclear what took place between 10/5/2002 and 11/27/2003 that shows applicant was diligent in reducing the invention to practice. No evidence is submitted that shows diligence in reducing the invention to practice over this time period. The declaration is silent regarding this time period.

Exhibit G comprises a number of emails indicating the completion of draft applications comprising the instant application and related inventions. There are a number of large time gaps between these emails. It is unclear what occurred between 2/24/2003 and 3/24/2003 as well as what occurred between 3/27/2003 and 4/14/2003 that shows applicant was diligent in reducing the invention to practice. No evidence is submitted that shows diligence in reducing the invention to practice over this time period. The declaration is silent regarding this time period. In the remarks dated 7/14/2008, applicant's representative states "Representative for Applicant docketed the application in accordance with standard procedures, prepared backlogged cases in chronological order and the proceeded to complete a draft of the application". No evidence of this is provided during the time periods specified above.

5. An additional rejection of claims 1, 3-6, 14-17, 19 and 22-26 is stated below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 12, 13, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Muller et al "OFDM with Reduced Peak-to-Average Power Ratio by Multiple Signal Representation", vol. 52, no. 1/2, 2/1997, XP 000991143. Ghanadan et al (US 6,294,956) provides information regarding the term replica.

Regarding claims 12, 13, 20 and 21, Muller discloses a method and apparatus for splitting an input signal into a plurality of replica signals (figure 5). The replica signals are scaled to reduce the peak values (figure 5 and page 63). The signals are combined in the adder of figure 5. The combined signal is amplified by a power amplifier (page 59). Muller does not disclose what constitutes a replica signal. Muller discloses the carriers are divided into subcarriers. Ghanadan discloses an amplification system shown in figure 17. Ghanadan discloses the original signal S is transformed into signals that are more power efficient by selectively shaping different portions of the signal S (column 14, lines 26-32). This will produce signals with reduced PAR. As such, a signal with different carriers or tones can be selectively separated (column 14, lines 32-36).

Figure 17 shows a splitter 138 that provides replicas of the signal to two orthogonal filters 134 and 136. The filters 134 and 136 shape the frequency content of the different versions of the signal to improve power efficiency of the transformed signals X1 and X2 compared to the power efficiency of the original signal (column 14, lines 39-45). The context of Ghanadan's "replica" term is consistent with Muller's signal shown in figure 5.

7. Claims 14, 15, 17, 19 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Corral (US 2004/0086054).

Regarding claims 14 and 15, Corral discloses a communication system comprising communication devices. The communication device includes a signal modifier that modifies an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. Figure 8 discloses the transmitter. A large peak is cancelled through the subtraction of a reference function of the transmitted signal. An "anti-peak" signal is generated and summed to the original signal (paragraph 0027). The transmitter inserts side information prior to the transmission of the signal (figure 8, block 106). To enable the receiver to recover the data, a pointer to the multiplying sequence can be transmitted as side information (paragraph 0031). The signal will be amplified prior to transmission (paragraph 0020). The side information and data are combined to be "transmitted in a parallel relationship".

Regarding claims 17 and 19, Corral discloses a communication system comprising communication devices. The communication device includes a signal modifier that modifies an input signal to reduce peak values associated with the input

signal and provides a peak reduced input signal. Figure 8 discloses the transmitter. A large peak is cancelled through the subtraction of a reference function of the transmitted signal. An “anti-peak” signal is generated and summed to the original signal (paragraph 0027). The transmitter inserts side information prior to the transmission of the signal (figure 8, block 106). To enable the receiver to recover the data, a pointer to the multiplying sequence can be transmitted as side information (paragraph 0031). The signal will be amplified prior to transmission (paragraph 0020). The side information and data are combined to be “transmitted in a sequential relationship”. The side information is inserted into the data but can be inserted into the beginning, middle or end of the data packet.

Regarding claim 22, Corral discloses a communication system comprising communication devices. The communication device includes a signal modifier that modifies an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. Figure 8 discloses the transmitter. A large peak is cancelled through the subtraction of a reference function of the transmitted signal. An “anti-peak” signal is generated and summed to the original signal (paragraph 0027). The transmitter inserts side information prior to the transmission of the signal (figure 8, block 106). To enable the receiver to recover the data, a pointer to the multiplying sequence can be transmitted as side information (paragraph 0031). The signal will be amplified prior to transmission (paragraph 0020).

8. Claims 14, 15, 17, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tellado et al (US 6,314,146).

Regarding claims 14 and 15, Tellado discloses a communication system. The system comprises a signal modifier for modifying an input signal to reduce peak values associated with an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. The abstract of Tellado discloses the system for reducing the peak to average power ratio of a signal by clipping an original signal at transmission. The transmitter inserts side information prior to transmission of the signal. The side information may be sent to the receiver concerning the clipping and the more information provided to the receiver, the easier it is for the receiver to decode the transmitted signal (column 27, lines 6-22). The side information may be sent on a per symbol basis or less frequently depending on the PAR scheme (column 27, lines 13-16). The signal will be amplified prior to transmission (figure 28B). The side information and the data are “transmitted in a parallel relationship”.

Regarding claims 17 and 19, Tellado discloses a communication method. The method comprises a signal modifier for modifying an input signal to reduce peak values associated with an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. The abstract of Tellado discloses the method for reducing the peak to average power ratio of a signal by clipping an original signal at transmission. The transmitter inserts side information prior to transmission of the signal. The side information may be sent to the receiver concerning the clipping and the more information provided to the receiver, the easier it is for the receiver to decode the

transmitted signal (column 27, lines 6-22). The side information may be sent on a per symbol basis or less frequently depending on the PAR scheme (column 27, lines 13-16). The signal will be amplified prior to transmission (figure 28B). The side information and the data are "transmitted in a parallel relationship".

Regarding claim 22, Tellado discloses a communication system. The system comprises a signal modifier for modifying an input signal to reduce peak values associated with an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. The abstract of Tellado discloses the system for reducing the peak to average power ratio of a signal by clipping an original signal at transmission. The transmitter inserts side information prior to transmission of the signal. The side information may be sent to the receiver concerning the clipping and the more information provided to the receiver, the easier it is for the receiver to decode the transmitted signal (column 27, lines 6-22). The side information may be sent on a per symbol basis or less frequently depending on the PAR scheme (column 27, lines 13-16). The signal will be amplified prior to transmission (figure 28B).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corral (US 2004/0086054) in view of Tong et al (US 2003/0099302).

Regarding claim 1, Corral discloses a communication device. The communication device includes a signal modifier that modifies an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. Figure 8 discloses the transmitter. A large peak is cancelled through the subtraction of a reference function of the transmitted signal. An “anti-peak” signal is generated and summed to the original signal (paragraph 0027). The transmitter inserts side information prior to the transmission of the signal (figure 8, block 106). The signal will be amplified prior to transmission (paragraph 0020). Corral does not disclose shaping a modulation constellation of the input signal to reduce the peak values associated with the input signal. Tong discloses constellation shaping as shown in figure 5. Constellation shaping is a method of reducing the power required to transmit data relative to the power required for an unshaped constellation while keeping the minimum distance between constellation points the same (paragraphs 0054-0057). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the shaping components of Tong into the device of Corral to further reduce the power of the system.

Regarding claims 3 and 4, paragraph 0027 of Corral discloses the combining of an instruction signal with the input signal to generate a peak reduced signal.

Regarding claim 5, Corral discloses the PAR reduction is used in an OFDM system (abstract).

Regarding claim 6, Corral discloses the DAC that converts the peak reduced signal to an analog signal prior to transmission (paragraph 0024).

10. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tellado et al (US 6,314,146) in view of Tong et al (US 2003/0099302).

Regarding claim 1, Tellado discloses a communication system. The system comprises a signal modifier for modifying an input signal to reduce peak values associated with an input signal to reduce peak values associated with the input signal and provides a peak reduced input signal. The abstract of Tellado discloses the system for reducing the peak to average power ratio of a signal by clipping an original signal at transmission. The transmitter inserts side information prior to transmission of the signal. The side information may be sent to the receiver concerning the clipping and the more information provided to the receiver, the easier it is for the receiver to decode the transmitted signal (column 27, lines 6-22). The side information may be sent on a per symbol basis or less frequently depending on the PAR scheme (column 27, lines 13-16). The signal will be amplified prior to transmission (figure 28B). Tellado does not disclose shaping a modulation constellation of the input signal to reduce the peak values associated with the input signal. Tong discloses constellation shaping as shown in figure 5. Constellation shaping is a method of reducing the power required to transmit data relative to the power required for an unshaped constellation while keeping the minimum distance between constellation points the same (paragraphs 0054-0057). Therefore, it would have been obvious for one of ordinary skill in the art at the time of

the invention to combine the shaping components of Tong into the device of Tellado to further reduce the power of the system.

Regarding claims 3 and 4, column 27, lines 6-22 of Tellado discloses the transmission of the side information and the peak reduced signal.

Regarding claim 5, Tellado discloses the PAR reduction is used in an OFDM system (column 27, lines 23-38).

Regarding claim 6, Tellado discloses the DAC that converts the peak reduced signal to an analog signal prior to transmission (figure 28B).

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corral (US 2004/0086054) in view of Muller et al "OFDM with Reduced Peak-to-Average Power Ratio by Multiple Signal Representation", vol. 52, no. 1/2, 2/1997, XP 000991143. Ghanadan et al (US 6,294,956) provides information regarding the term replica.

Regarding claim 16, Corral discloses the communication system disclosed above in paragraph 7. Corral does not disclose decomposing the input signal into a plurality of replicas. Muller discloses a method and apparatus for splitting an input signal into a plurality of replica signals (figure 5). The replica signals are scaled to reduce the peak values (figure 5 and page 63). The signals are combined in the adder of figure 5. The combined signal is amplified by a power amplifier (page 59). Muller does not disclose what constitutes a replica signal. Muller discloses the carriers are divided into subcarriers. Ghanadan discloses an amplification system shown in figure 17. Ghanadan

discloses the original signal S is transformed into signals that are more power efficient by selectively shaping different portions of the signal S (column 14, lines 26-32). This will produce signals with reduced PAR. As such, a signal with different carriers or tones can be selectively separated (column 14, lines 32-36). Figure 17 shows a splitter 138 that provides replicas of the signal to two orthogonal filters 134 and 136. The filters 134 and 136 shape the frequency content of the different versions of the signal to improve power efficiency of the transformed signals X1 and X2 compared to the power efficiency of the original signal (column 14, lines 39-45). The context of Ghanadan's "replica" term is consistent with Muller's signal shown in figure 5. It would have been obvious to combine the teaching of Muller into the communication system of Corral to allow for the very flexible and distortionless methods for the reduction of the peak to average ratio to be realized (Muller page 59, left column).

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tellado (US 6,314,146) in view of Muller et al "OFDM with Reduced Peak-to-Average Power Ratio by Multiple Signal Representation", vol. 52, no. 1/2, 2/1997, XP 000991143. Ghanadan et al (US 6,294,956) provides information regarding the term replica.

Regarding claim 16, Tellado discloses the communication system disclosed above in paragraph 8. Tellado does not disclose decomposing the input signal into a plurality of replicas. Muller discloses a method and apparatus for splitting an input signal into a plurality of replica signals (figure 5). The replica signals are scaled to reduce the peak values (figure 5 and page 63). The signals are combined in the adder of figure 5.

The combined signal is amplified by a power amplifier (page 59). Muller does not disclose what constitutes a replica signal. Muller discloses the carriers are divided into subcarriers. Ghanadan discloses an amplification system shown in figure 17. Ghanadan discloses the original signal S is transformed into signals that are more power efficient by selectively shaping different portions of the signal S (column 14, lines 26-32). This will produce signals with reduced PAR. As such, a signal with different carriers or tones can be selectively separated (column 14, lines 32-36). Figure 17 shows a splitter 138 that provides replicas of the signal to two orthogonal filters 134 and 136. The filters 134 and 136 shape the frequency content of the different versions of the signal to improve power efficiency of the transformed signals X1 and X2 compared to the power efficiency of the original signal (column 14, lines 39-45). The context of Ghanadan's "replica" term is consistent with Muller's signal shown in figure 5. It would have been obvious to combine the teaching of Muller into the communication system of Tellado to allow for the very flexible and distortionless methods for the reduction of the peak to average ratio to be realized (Muller page 59, left column).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corral (US 2004/0086054) in view of Kupferschmidt et al (WO 01/43320 A2). Kupferschmidt et al (US 7,080,006) is a translation of WO 01/43320 A2.

Regarding claim 23, Corral discloses the communication system stated above in paragraph 7. Corral does not disclose transmitting a scale factor with the data associated with reducing peak values. Kupferschmidt discloses a communication

system comprising communication devices. A transmitter transmits digital data. The transmitter also transmits an instruction signal comprising a scale factor that corresponds to the data. Column 1, lines 11-31 disclose the transmission of the data and scale factor. Figure 1 shows the reference value selection 4 and reference value 5 of the data frame includes the scale factor (column 5, lines 47-53). Figure 1 shows audio data 6 and additional data 7 is transmitted after the scale factors (column 4, lines 48-53). The scale factors are used for the decoding of digital audio data which is used to perform an error recognition dependent on transmitted reference values e.g., scale factors (abstract). The scale factor is associated with reducing the peak value since an error is detected when the signal is above a predetermined threshold (column 6, lines 11-18). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the system of Kupferschmidt into the system of Corral to provide a plausible test for error and to correct the errors (Kupferschmidt, column 1, lines 53-61).

14. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tellado (US 6,314,146) in view of Kupferschmidt et al (WO 01/43320 A2). Kupferschmidt et al (US 7,080,006) is a translation of WO 01/43320 A2.

Regarding claim 23, Tellado discloses the communication system stated above in paragraph 8. Tellado does not disclose transmitting a scale factor with the data associated with reducing peak values. Kupferschmidt discloses a communication system comprising communication devices. A transmitter transmits digital data. The transmitter also transmits an instruction signal comprising a scale factor that

corresponds to the data. Column 1, lines 11-31 disclose the transmission of the data and scale factor. Figure 1 shows the reference value selection 4 and reference value 5 of the data frame includes the scale factor (column 5, lines 47-53). Figure 1 shows audio data 6 and additional data 7 is transmitted after the scale factors (column 4, lines 48-53). The scale factors are used for the decoding of digital audio data which is used to perform an error recognition dependent on transmitted reference values e.g., scale factors (abstract). The scale factor is associated with reducing the peak value since an error is detected when the signal is above a predetermined threshold (column 6, lines 11-18). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the system of Kupferschmidt into the system of Tellado to provide a plausible test for error and to correct the errors (Kupferschmidt, column 1, lines 53-61).

15. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corral (US 2004/0086054) in view of Tong et al (US 2003/0099302) further in view of Kupferschmidt et al (WO 01/43320 A2). Kupferschmidt et al (US 7,080,006) is a translation of WO 01/43320 A2.

Regarding claim 24, the combination of Corral and Tong disclose the communication system stated above in paragraph 9. The combination does not disclose transmitting a scale factor with the data associated with reducing peak values. Kupferschmidt discloses a communication system comprising communication devices. A transmitter transmits digital data. The transmitter also transmits an instruction signal

comprising a scale factor that corresponds to the data. Column 1, lines 11-31 disclose the transmission of the data and scale factor. Figure 1 shows the reference value selection 4 and reference value 5 of the data frame includes the scale factor (column 5, lines 47-53). Figure 1 shows audio data 6 and additional data 7 is transmitted after the scale factors (column 4, lines 48-53). The scale factors are used for the decoding of digital audio data which is used to perform an error recognition dependent on transmitted reference values e.g., scale factors (abstract). The scale factor is associated with reducing the peak value since an error is detected when the signal is above a predetermined threshold (column 6, lines 11-18). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the system of Kupferschmidt into the system of the combination of Corral and Tong to provide a plausible test for error and to correct the errors (Kupferschmidt, column 1, lines 53-61).

Regarding claim 25, Kupferschmidt discloses the data and scaling factors are transmitted concurrently in that the data is translated in the dame data frame as shown in figure 1.

Regarding claim 26, Kupferschmidt discloses scaling factors are placed prior to the data in the frame in claim 1.

16. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tellado (US 6,314,146) in view of Tong et al (US 2003/0099302) further in view of Kupferschmidt et al (WO 01/43320 A2). Kupferschmidt et al (US 7,080,006) is a translation of WO 01/43320 A2.

Regarding claim 24, the combination of Tellado and Tong disclose the communication system stated above in paragraph 10. The combination does not disclose transmitting a scale factor with the data associated with reducing peak values. Kupferschmidt discloses a communication system comprising communication devices. A transmitter transmits digital data. The transmitter also transmits an instruction signal comprising a scale factor that corresponds to the data. Column 1, lines 11-31 disclose the transmission of the data and scale factor. Figure 1 shows the reference value selection 4 and reference value 5 of the data frame includes the scale factor (column 5, lines 47-53). Figure 1 shows audio data 6 and additional data 7 is transmitted after the scale factors (column 4, lines 48-53). The scale factors are used for the decoding of digital audio data which is used to perform an error recognition dependent on transmitted reference values e.g., scale factors (abstract). The scale factor is associated with reducing the peak value since an error is detected when the signal is above a predetermined threshold (column 6, lines 11-18). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the system of Kupferschmidt into the system of the combination of Tellado and Tong to provide a plausible test for error and to correct the errors (Kupferschmidt, column 1, lines 53-61).

Regarding claim 25, Kupferschmidt discloses the data and scaling factors are transmitted concurrently in that the data is translated in the dame data frame as shown in figure 1.

Regarding claim 26, Kupferschmidt discloses scaling factors are placed prior to the data in the frame in claim 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
8/20/2008